We Claim:

1. A method of performing automatic recovery of a control plane network in the event of a control link failure in an optical communications system comprising:
detecting a failure in a control link between neighboring nodes;
searching for an alternate route between the neighboring nodes;
if an alternate route is located, switching the control plane to the alternate route; and
notifying respective switch nodes of the alternate route.

2. The method according to claim 1 wherein said control plane network employs Internet Protocol (IP) technology.
3. The method according to claim 2 wherein said control plane network is on an in-band link.
4. The method according to claim 3 wherein said in-band link is a wavelength channel carried on an optical fiber.
5. The method according to claim 2 wherein said control plane network is on an out-of-band link.
6. The method according to claim 2 wherein said alternate route is an IP tunnel between said neighboring nodes.
7. The method according to claim 1 wherein, if said link failure is repaired, said control link is switched back to the original link.
8. The method according to claim 7 wherein said control link is switched back to said original link automatically.
9. The method according to claim 7 wherein said control link is switched back to said original link manually by an operator.
10. The method according to claim 1 wherein, if an alternate route is not located within a preset interval, a search is conducted for an alternate route through the complete network.
11. The method according to claim 1 for use in a protected system wherein the control link has a predefined alternate route.

12. The method as defined in claim 1 for use in an unprotected system wherein the control link does not have a predefined alternate route.

13. A system for performing automatic recovery of a control plane network in the event of a control link failure in an optical communications system comprising:

a link manager for detecting a failure in a control link between neighboring nodes; and

a control channel manager for searching for an alternate route between the neighboring nodes, for switching the control plane to the alternate route if an alternate route is located, and for notifying respective nodes of the alternate route.

14. The system as defined in claim 13 wherein said control channel manager has an information database for maintaining information on the control network.

15. The system as defined in claim 14 wherein said information database stores a forwarding redirection table that maps forwarding interfaces.

16. The system as defined in claim 13 having an IP forwarder for forwarding information from a routing table and the forwarding redirection table.